SLIC # 0760 SEMS-RM DOCID # 1167212

FREY ENVIRONMENTAL, INC.

Environmental Geologists, Engineers, Assessors

2817 A Lafayette Avenue
Newport Beach, CA 92663
(949) 723-1645
Fax (949) 723-1854
Email: freyinc@freyinc.com

October 24, 2000
172-01

Steven Hariri
Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: Former Mondo Chrome Facility
4933 Firestone Boulevard
South Gate, California
SLIC No. 760

Dear Steve:

Enclosed please find one copy of a document titled *Workplan, Additional Groundwater Investigation, Former Mondo Chrome Facility, 4933 Firestone Boulevard, South Gate, California* dated October 20, 2000.

Please phone me at (949) 723-1645 with any questions.

Sincerely,
FREY Environmental, Inc.

Evan Privett
Senior Project Geologist

cc: Howard Kay
Tedesco Leasing Partnership
475 Seventeenth Street, Suite 940
Denver, CO 80202

WORKPLAN
ADDITIONAL GROUNDWATER INVESTIGATION
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

Prepared for:

Tedesco Leasing Partnership
475 Seventeenth Street, Suite 940
Denver, Colorado 80202

Prepared by:

FREY Environmental, Inc.
2817A Lafayette Ave.
Newport Beach, California 92663-3715
(949) 723-1645

Project No.: 172-01

October 20, 2000

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

1.0 INTRODUCTION

This workplan has been prepared at the request of the Regional Water Quality Control Board (RWQCB). The request was made during a meeting on October 12, 2000 between a representative of the RWQCB and FREY Environmental, Inc. (FREY). In addition, information presented within this workplan and work proposed as part of the workplan should address the concerns set forth by the RWQCB in their letter to the Tedesco Leasing Partnership dated August 31, 2000. It should also be noted that the Tedesco Leasing Partnership has subcontracted FREY to install and operate a vapor extraction system at the Site.

It was reported during the meeting that the City of South Gate has shut down municipal water supply well #7 due to the presence of total chromium and hexavalent chromium. Total chromium and hexavalent chromium were reportedly present in water samples collected from well #7 at concentrations up to 86 micrograms per liter (ug/L) and 64 ug/L. Well #7 is located at the termination of Nevill Avenue approximately 400 feet north of the former Mondo Chrome facility.

2.0 BACKGROUND

2.1 HISTORICAL SITE USAGE

The Site was used as a machine shop between 1972 and 1982 and as a chrome plating shop from approximately 1982 through 1990. The Los Angeles County Fire Department (LACFD) responded to a reported hazardous materials spill at the Site in July of 1990. The LACFD issued a violation to the Site occupant, who apparently fled the area, for the improper storage of hazardous materials and the use of leaky storage vessels (Fugro, 1994).

2.2 HAZARDOUS MATERIALS REMOVAL

Chem-Tech was hired to prepare a list of materials on the Site. Chemicals stored at the Site included the following: Alkaline metal solutions, chrome solutions, nickel solutions, flammable liquids, nickel /chrome sludge, acidic nickel solutions, solidified alkaline cleaner, and dry cyanide compounds. Tedesco Leasing, the Site owner, hired a contractor to remove and dispose of the hazardous materials (Fugro, 1994).

2.3 SUBSURFACE SOIL INVESTIGATIONS

Applied Geosciences drilled 11 borings with a hand auger and advanced 12 borings with a drilling rig in 1992. Selected soil borings were advanced to maximum depths of 40 feet below the ground surface (bgs). Groundwater was not encountered during this investigation. Soil samples were collected and analyzed for the presence or evidence of chemicals formerly stored at the Site which included volatile organic compounds, selected metals, pH and cyanide (Fugro, 1994).

Perchloroethylene (PCE) was detected in concentrations up to 41,000 parts per billion (ppb) in soil samples collected during the subsurface soil investigation. Low concentrations of TCE were also detected in selected soil samples collected during the subsurface soil investigation. In general, the majority of the chlorinated solvent concentrations are located in the immediate vicinity of the former clarifier, in the northern section of the Site, at depths of 15 feet or less.

Concentrations of total chromium and hexavalent chromium (chromium VI) were also detected in soil samples collected and analyzed as part of this investigation (Fugro, 1994). Concentrations of total chromium and chromium VI did not exceed EPA preliminary remediation goals (PRGs) for industrial soils of 4,500 mg/kg and 64 mg/kg, respectively, in soil samples collected as part of this investigation (EPA, 1996).

Soil sample results have been summarized in Table 1. Soil boring locations along with laboratory soil sample results are shown on Figure 2.

2.4 VAPOR EXTRACTION WELL INSTALLATION AND TESTING

FREY drilled and sampled one soil boring to a final depth of 50 feet bgs on June 27, 1996 in the location shown on Figure 2. Soil samples were collected at five foot depth intervals and selected samples analyzed for chlorinated halocarbons. PCE and TCE were detected at maximum concentrations of 0.212 mg/kg (25 feet bgs) and 0.070 mg/kg (50 feet bgs), respectively, in soil samples collected from the boring. FREY converted the boring to a 2-inch diameter vapor extraction well which has a screened interval from 15 feet bgs to 45 feet bgs.

FREY also collected soil samples from six locations at the Site on June 27, 1996 (Figure 2). The soil samples, labeled FB1 through FB5, were collected from depths of approximately one foot beneath the concrete slab. Soil samples FB1 through FB6 were analyzed for chromium, chromium VI and cadmium. Chromium VI was not detected above laboratory detection limits in soil samples FB1 through FB5. Chromium and cadmium were detected at maximum concentrations of 69.6 mg/kg and 8.7 mg/kg, respectively, in soil samples FB1 through FB5 (FREY, 1996). Concentrations of chromium and cadmium did not exceed EPA PRGs for industrial soils of 4,500 mg/kg and 8,500 mg/kg, respectively, in soil samples collected as part of this investigation (EPA, 1996).

FREY returned to the Site on July 11, 1996 and installed two vapor probes to facilitate future vapor extraction testing activities. The vapor probes were constructed of one quarter inch diameter tygon tubing with screened intervals between 19 and 20 feet bgs and 39 and 40 feet bgs. Vapor probe locations are shown on Figure 2 (FREY, 1996).

FREY conducted a vapor extraction test on July 16, 1996. FREY extracted vapors at flow rates up to 160 cubic feet per minute. The maximum radius of influence calculated was 80 feet. PCE and TCE were present in vapor samples at concentrations up to 32,800 parts per million per volume (ppmv) and 26,000 ppmv, respectively (FREY, 1996).

2.5 GROUNDWATER MONITORING WELL INSTALLATION

FREY drilled and installed groundwater monitoring wells MW1, MW2 and MW3 on December 2, 1998 in the locations shown on Figure 2. Soil samples were collected at five foot depth intervals from each boring, however, only those samples from MW1 were submitted for laboratory analyses (FREY, 1998).

Groundwater monitoring wells MW1, MW2 and MW3 were constructed of 2-inch diameter PVC blank casing and screen. The screened interval of each well extends between 30 and 55 feet bgs (FREY, 1998).

Concentrations of PCE and TCE were detected in soil samples collected from well MW1. Concentrations of PCE decreased with depth from 0.515 mg/kg in the sample collected from 15 feet bgs to 0.010 mg/kg in the sample collected from 35 feet bgs. Soil sample results have been summarized in Table 1 (FREY, 1998).

2.6 GROUNDWATER MONITORING WELL SAMPLING

Groundwater monitoring wells MW1, MW2 and MW3 have been sampled on a quarterly basis between December 7, 1998 and September 22, 2000. TCE and PCE have been detected at maximum concentrations of 909 micrograms per liter (ug/L) and 707 ug/L in groundwater samples collected from well MW1 on June 26, 2000 and September 17, 2000, respectively. PCE has consistently been detected in concentrations close to the maximum contaminant level (MCL) of 5 ug/L in groundwater samples collected from wells MW2 and MW3 (FREY, 2000).

Concentrations of total chromium have been detected in excess of the MCL in samples collected from well MW3 on March 3, 1999 and September 17, 1999. The remainder of the groundwater samples collected from wells MW1, MW2 and MW3 have contained total chromium in concentrations equal to or less than the MCL of 50 ug/L. Hexavalent chromium and cadmium have not been detected in groundwater samples collected from wells MW1, MW2 and MW3 (FREY, 2000).

The depth to first groundwater has historically been approximately 40 feet bgs. Groundwater was estimated to flow toward the west on December 7, 1998 at a gradient of 0.001 feet per foot (ft/ft). Groundwater was estimated to flow toward the southwest or south in the first, second, third and fourth quarters of 1999 at gradients ranging from 0.0003 ft/ft to 0.0005 ft/ft. Groundwater was estimated to flow toward the north in the first two quarters of 2000 and slightly toward the northwest in the third quarter of 2000 at gradients ranging from 0.00075 ft/ft to 0.0011 ft/ft (FREY, 2000).

3.0 OBJECTIVES

The objectives of the work described below are to: 1) provide a list of potential firms within one-half mile of the Site who may have used chromium over the past 75 years; 2) further assess the lateral extent of groundwater with concentrations of purgeable halocarbons and selected metals, and; 3) further assess the vertical extent of soil and groundwater with concentrations of purgeable halocarbons and selected metals.

4.0 SCOPE OF WORK

The scope of work, designed to provide the information needed to meet the objectives of the investigation, is as follows:

- Review historical phone directories for former or current facilities which may have used chromium within one half mile of well #7;
- Research well construction and operational details of well #7;
- Revise and implement a site-specific health and safety plan;
- Obtain encroachment permits from the City of South Gate;
- Obtain off-Site access from the property owner northeast of the Site;
- Schedule drillers and other subcontractors, and order equipment, materials, and supplies;
- Drill and sample four soil borings using direct push technology;
- Collect groundwater samples from the four direct push borings;
- Drill and sample one soil boring by the hollow stem auger drilling method;
- Collect groundwater samples from various depths from the hollow stem auger boring;
- Field screen collected soil samples for total undifferentiated volatile organic compounds (UVOCs);
- Analyze selected soil and groundwater samples for chemical constituents and, potentially, geotechnical parameters, and;
- Evaluate data and prepare a report discussing the field activities conducted as part of this investigation.

A more detailed description of the field investigation and laboratory testing program is provided in Section 6.0.

5.0 SITE SETTING

5.1 SURFACE CONDITIONS

The Site is located on the north side of Firestone Boulevard approximately 300 feet to the east of the intersection of Atlantic Boulevard in South Gate, California. The Site consists of one, rectangular shaped unit in a single story commercial building. Site dimensions are approximately 20 feet from east to west and approximately 100 feet from north to south. The Site has a concrete floor approximately 6-inches thick. The Site shares a common wall with a printing facility on the east and a retail clothing store on the west. A sidewalk and Firestone Boulevard border the Site on the south and Mason Street borders the Site on the north.

5.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is located within the Central Basin Pressure Area of the Downey Plain which is a subgroup of the Coastal Plain of Los Angeles County. The Downey Plain is a depositional feature consisting of alluvial fans from the Los Angeles River and Rio Hondo-San Gabriel River Systems (DWR, 1961).

The Central Basin Pressure Area is characterized by the presence of many aquicludes, most notably the Bellflower aquiclude consists of low permeability silts and clays that separate near surface water from the deeper water bearing zones. The Bellflower aquiclude is estimated to be approximately 65 feet beneath the Site and have a thickness of approximately 60 feet in this area (DWR, 1961).

The Gaspur aquifer of the Lakewood Formation is the water bearing unit which is located beneath the Bellflower aquiclude beneath the Site. The Lakewood Formation has several water bearing units including the Artesia, Exposition, Gage and Gardena aquifers. The San Pedro Formation underlies the Lakewood Formation and has several water bearing units including the Hollydale, Jefferson, Lynwood, Silverado and Sunnyside aquifers (DWR, 1961).

6.0 PROPOSED INVESTIGATION

6.1 SITE VICINITY HISTORICAL SEARCH

6.1.1 Government Agency Database Review

FREY will conduct a review of government agency databases in an attempt to identify recent facilities which may potentially use chromium.

6.1.2 Former Tenant Review

FREY will conduct a review of historical phone directories in an attempt to identify former facilities which may have used chromium. Historical phone books will be reviewed on approximate 5 year intervals for the previous 75 years. The geographical area of coverage will focus on the industrial areas of South Gate and Cudahy. The approximate search boundaries include the Los Angeles River on the east, Cecelia Street on the north, and Quartz Avenue and Rheem Avenue on the west. The southern boundary will consist of Firestone Boulevard, Atlantic Avenue and Wood Avenue.

6.1.3 Pumping Well Research

FREY will attempt to obtain information regarding historical concentrations of chlorinated halocarbons, chromium and hexavalent chromium in well #7. FREY will also research well construction and operation characteristics of well #7 such as screened interval, pumping rates, cone of depression.

6.2 LATERAL ASSESSMENT OF SOIL AND GROUNDWATER CONDITIONS

6.2.1 Pre Drilling Activities

FREY will obtain encroachment permits from the City of South Gate and negotiate access to drill on the S&R Clutch Repair property prior to the conduct of any drilling operations. FREY will mark the borehole locations with white paint and obtain an underground service alert number prior to the conduct of any drilling operations. FREY will update the health and safety plan previously prepared for the Site. All field work will be conducted under the general guidelines set forth in the health and safety plan attached in Appendix A. FREY will notify the RWQCB at least 72 hours prior to the conduct of drilling operations.

6.2.2 Drilling of Four Soil Borings

FREY proposes to drill and sample four soil borings in the locations shown on Figure 3. Soil borings B12 through B15 will be drilled approximately 80 feet to 100 feet to the west, northwest, northeast and east, respectively, of existing well MW1. Traffic control measures (cones and signage) will be placed in Mason Street during the drilling of B12 and B15.

FREY will manually excavate each boring to approximately 5 feet bgs to locate and avoid subsurface utilities and obstructions. Soil borings B12 through B15 will be advanced to groundwater with a Geoprobe type drilling rig. Soil samples will be collected at five foot depth intervals and visually examined in order to characterize soil lithology and moisture, and to observe for the presence of chlorinated halocarbons. Soil samples and soil cuttings will be described using the Unified Soil Classification System (USCS). An organic vapor analyzer will be used to screen soil samples in the field for the presence of chlorinated halocarbons as described in Appendix A. Groundwater samples will be collected from each borehole in general accordance with the procedures described in Appendix B. Borings will be backfilled with a bentonite powder and capped with asphalt to match the existing surface.

6.3 VERTICAL ASSESSMENT OF SOIL AND GROUNDWATER CONDITIONS

6.3.1 Pre Drilling Activities

FREY will mark the borehole location with white paint and obtain an underground service alert number prior to the conduct of any drilling operations. FREY will follow the procedures described in Section 6.2.1.

6.3.2 Soil Lithology

FREY reviewed the Department of Water Resources Bulletin Number 104 to gain a better understanding of subsurface soil conditions at depths greater than 55 feet bgs. Review of Plate 3A in Bulletin Number 104 indicates that two wells were drilled in the immediate vicinity of the Site (DWR, 1961). FREY contacted the Department of Water Resources and obtained the well logs for wells designated 2S/12W-31M2 and 2S/12W-31L1. The well logs for wells designated 2S/12W-31M2 and 2S/12W-31L1 are attached in Appendix C.

As noted on the well log, well 2S/12W-31M2 is located "approximately 20 feet from old #7 well". The owner of the well is listed as the Southgate Water Department. FREY placed numerous calls to the City of South Gate Water Department in order to obtain the well log for well #7 and to confirm or deny that the current well #7 is the same as the well described in the well log for 2S/12W-31M2. The City of South Gate Water Department indicated that the well log for well #7 would be available to FREY on October 23, 2000.

Review of the well log for 2S/12W-31M2 indicates that upper 89 feet of soil consists of relatively permeable sediments such as silts, sands and gravels. A sticky clay layer was encountered between 89 feet and 114 feet bgs. Sands and gravels were encountered between 114 feet bgs and 127 feet bgs at which depth a sandy clay was encountered. The sandy clay extended from 127 feet bgs to 169 feet bgs. Sands and gravels were encountered between 169 feet bgs and 252 feet bgs. Soils beneath 252 feet bgs consisted primarily of sands and gravels with selected zones of clay to the bottom of the well at approximately 600 feet bgs.

Review of the well log for 2S/12W-31L1 (also labeled as #1524B) indicates that upper 93 feet of soil consists of silts and sands. A black clay was encountered between 93 feet and 161 feet bgs. Sands and gravels were encountered between 161 feet bgs and 168 feet bgs at which depth a clay was encountered. The clay extended from 168 feet bgs to 194 feet bgs. Sands and gravels were encountered between 194 feet bgs and 201 feet bgs. A clay layer was encountered between the depths of 201 feet bgs and 212 feet bgs. Soils beneath 212 feet bgs consisted primarily alternating layers of sands and gravels and clays to the bottom of the boring at approximately 660 feet bgs. Well 2S/12W-31L1 appears to be located within 200 feet of the Site according to Plate 3A in Bulletin Number 104.

6.3.3 Drilling of One Soil Boring

FREY proposes to drill one soil boring (B16) to provide a vertical profile of subsurface soils in the location shown on Figure 3. The boring will be hand excavated to approximately four feet bgs to locate and avoid piping and extended to an estimated final depth of approximately 170 feet bgs with a CME 85 truck mounted drilling rig equipped with 8.25-inch outer diameter, hollow-stem augers. FREY anticipates drilling to approximately 170 feet bgs based on the boring log created for well 2S/12W-31L1 which shows a layer of clay between the depths of 93 feet bgs to 161 feet bgs.

Soil samples will not be collected from the ground surface to 45 feet bgs. Soil samples will be collected at approximate five foot depth intervals from 45 feet bgs to approximately 170 feet bgs. Soil samples and soil cuttings will be described using the USCS. Soil cuttings generated during well installation activities will be stored in a roll off bin and will be disposed of at an appropriate recycling facility pending laboratory results.

FREY proposes to use a hydropunch to collect groundwater samples at approximate depths of 90, 120, 140 and 170 feet bgs. However, water sample collection depths may vary based upon lithologic conditions which vary significantly from those noted in on well log #1524B. Hydropunch groundwater sample collection procedures are described in greater detail in Appendix B. The boring will be backfilled with a bentonite based grout upon completion of drilling activities and capped with asphalt to match the surrounding surface area. All drilling activities will be conducted under the supervision of a State of California Registered Geologist and with standard engineering principals and protocol.

6.4 LABORATORY ANALYSES

6.4.1 Soil Samples

Soil samples collected from borings B12 through B15 from depths of 10, 20, 30 and 40 feet bgs will be analyzed for chlorinated halocarbons, total chromium and hexavalent chromium in accordance with EPA Method Nos. 8010, 6010B and 7196A, respectively. Soil samples collected from boring B16 from depths of 50, 70, 90, 110, 130, 150 and 170 feet bgs will also be analyzed for chlorinated halocarbons, total chromium and hexavalent chromium in accordance with EPA Method Nos. 8010, 6010B and 7196A, respectively.

Selected soil samples from boring B16 will be submitted for geotechnical characterization. Selected soil samples will be analyzed for hydraulic conductivity in accordance with either ASTM D 2434-68 or MOSA Chapter 28. Selected soil samples will also be analyzed for moisture content, bulk density and total porosity in accordance with ASTM D2216-92, ASTM D2937-94 and MOSA Chapter 18, respectively. Selected soil samples may also be classified by according to particle size.

6.4.2 Groundwater Samples

Groundwater samples collected from borings B12 through B16 will be analyzed for chlorinated halocarbons, total chromium and hexavalent chromium in accordance with EPA Method Nos. 8010, 6010B and 7196A, respectively.

6.5 DATA EVALUATION AND REPORT

Field measurements, observations and chemical analyses of soil samples will be evaluated and interpreted in context with the existing on-site soil conditions and the hydrogeological setting. A report describing our findings will be prepared and submitted for your approval.

Sincerely,
FREY Environmental, Inc.

Joe Frey
Principal Certified
Engineering Geologist
CEG #1500

Evan Privett
Senior Project Geologist

REFERENCES

CCR (California Code of Regulations), 1994, Title 22, Section 66261.24, "Characteristic of Toxicity," page 656.

DWR (Department of Water Resources), 1961, Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Bulletin No. 104, reprinted 1988.

EPA (Environmental Protection Agency), 1996, Region 9 Preliminary Remediation Goals dated August 1, 1996.

FREY Environmental, Inc. Limited Subsurface Soil Investigation and Vapor Extraction Test, Former Mondo Chrome Facility, 4933 Firestone Boulevard, South Gate, California dated December 16, 1996.

-------, 1998, Groundwater Monitoring Well Installation and Sampling, Former Mondo Chrome Facility, 4933 Firestone Boulevard, South Gate, California dated January 8, 1999.

-------, 2000, Groundwater Monitoring Well Sampling, Third Quarter 2000, Former Mondo Chrome Facility, 4933 Firestone Boulevard, South Gate, California dated October 19, 2000.

Fugro West, Inc., 1994, Proposed Site Assessment, Former Mondo Chrome Facility, 4933 Firestone Boulevard, South Gate, California, unpublished document dated August, 1994.

RWQCB (Regional Water Quality Control Board), 1998, Meeting at the RWQCB between Howard Kay, FREY Environmental, Inc. and the RWQCB on May 28, 1998.

USGS (United State Geologic Survey), 1966, 7.5-minute topographic quadrangle of Southgate, California, photorevised 1981.

TABLES

TABLE 1
CHEMICAL ANALYSES OF SOIL SAMPLES
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA
(soil - milligrams per kilogram)

Boring Number	Depth (feet bgs)	Date Sampled	PCE	TCE	Toluene	Total Chromium	Cadmium	Chromium VI
HB-1	2	04/23/92	0.040	<0.005	<0.005	18.2	NA	NA
	5	04/23/92	0.040	<0.005	<0.005	14.1	NA	NA
	10	04/23/92	0.030	<0.005	<0.005	15.7	NA	NA
HB-2	2	04/23/92	NA	NA	NA	195	NA	NA
HB-3	2	04/23/92	NA	NA	NA	75.7	0.06	NA
	5	04/23/92	NA	NA	NA	235	NA	NA
	10	04/23/92	NA	NA	NA	158	NA	NA
HB-4	5	04/23/92	0.470	<0.005	<0.005	137	NA	NA
	10	04/23/92	0.030	<0.005	<0.005	67.8	NA	NA
	15	04/23/92	0.020	<0.005	<0.005	45	NA	NA
HB-5	2	04/23/92	0.240	<0.005	<0.005	45.8	NA	NA
	5	04/23/92	41.000	<0.005	<0.005	124	NA	NA
	10	04/23/92	0.020	<0.005	<0.005	38.6	NA	NA
	15	04/23/92	<0.005	<0.005	<0.005	22.4	NA	NA
HB-6	1	04/23/92	0.051	<0.005	<0.005	57.2	NA	NA
	5	04/23/92	0.006	<0.005	<0.005	11.5	NA	NA
	10	04/23/92	0.030	<0.005	<0.005	18.2	NA	NA
HB-7	1	04/23/92	<0.005	<0.005	<0.005	149	NA	NA
	5	04/23/92	<0.005	<0.005	<0.005	95.4	NA	NA
	10	04/23/92	0.008	<0.005	<0.005	17.8	NA	NA
HB-8	2	Oct - 1992	NA	NA	NA	20.9	0.14	NA
	5	Oct - 1992	NA	NA	NA	32.1	0.07	NA
	10	Oct - 1992	NA	NA	NA	22.7	0.13	NA
HB-9	2	Oct - 1992	NA	NA	NA	14.5	ND	NA
	5	Oct - 1992	NA	NA	NA	12.6	0.11	NA
	10	Oct - 1992	NA	NA	NA	35.4	0.25	NA
HB-10	2	Oct - 1992	NA	NA	NA	102	0.43	NA
	5	Oct - 1992	NA	NA	NA	42.8	ND	NA
	10	Oct - 1992	NA	NA	NA	16	0.21	NA

TABLE 1
CHEMICAL ANALYSES OF SOIL SAMPLES
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA
(soil - milligrams per kilogram)

Boring Number	Depth (feet bgs)	Date Sampled	PCE	TCE	Toluene	Total Chromium	Cadmium	Chromium VI
HB-11	2	Oct - 1992	0.077	<0.001	<0.001	NA	NA	NA
	5	Oct - 1992	0.004	<0.001	<0.001	NA	NA	NA
	10	Oct - 1992	0.085	0.003	<0.001	NA	NA	NA
	15	Oct - 1992	0.072	0.003	<0.001	NA	NA	NA
B-1	2	Oct - 1992	0.010	<0.001	0.006	10.8	0.06	NA
	5	Oct - 1992	<0.001	<0.001	<0.001	11	0.06	NA
	10	Oct - 1992	0.030	<0.001	<0.001	21.4	0.006	NA
B-2	2	Oct - 1992	0.100	<0.001	0.010	399	0.14	7.1
	5	Oct - 1992	0.020	<0.001	<0.001	116	0.19	NA
	10	Oct - 1992	0.140	<0.001	0.006	126	0.23	21
	15	Oct - 1992	0.058	<0.001	0.008	162	NA	4.2
	20	Oct - 1992	<0.001	<0.001	<0.001	71	NA	NA
B-3	2	Oct - 1992	<0.001	<0.001	<0.001	9.2	0.06	NA
	5	Oct - 1992	<0.001	<0.001	<0.001	10.3	0.24	NA
	10	Oct - 1992	<0.001	<0.001	<0.001	13	0.1	NA
B-4	2	Oct - 1992	NA	NA	NA	NA	NA	NA
	5	Oct - 1992	NA	NA	NA	NA	NA	NA
B-5	2	Oct - 1992	<0.001	<0.001	<0.001	8.8	0.03	NA
	5	Oct - 1992	<0.001	<0.001	<0.001	9.4	0.09	NA
	10	Oct - 1992	0.010	<0.001	0.008	15.2	0.13	NA
B-6	2	Oct - 1992	0.057	<0.001	0.009	10.5	0.18	NA
	5	Oct - 1992	<0.001	<0.001	<0.001	9	ND	NA
	10	Oct - 1992	0.077	<0.001	<0.001	13.8	0.04	NA
B-7	2	Oct - 1992	0.008	<0.001	<0.001	52	ND	NA
	5	Oct - 1992	0.050	<0.001	0.008	28.7	ND	NA
	10	Oct - 1992	0.150	<0.001	<0.001	26.2	0.1	NA
	15	Oct - 1992	<0.001	<0.001	<0.001	15.5	0.04	NA

TABLE 1
CHEMICAL ANALYSES OF SOIL SAMPLES
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA
(soil - milligrams per kilogram)

Boring Number	Depth (feet bgs)	Date Sampled	PCE	TCE	Toluene	Total Chromium	Cadmium	Chromium VI
B-8	2	Oct - 1992	12.000	<0.005	NA	NA	NA	NA
	5	Oct - 1992	<0.005	<0.005	NA	32.4	0.05	NA
	10	Oct - 1992	0.066	<0.005	NA	83.1	0.17	4.9
	15	Oct - 1992	0.360	<0.005	NA	143	0.13	1.2
	20	Oct - 1992	NA	NA	NA	22	NA	NA
	25	Oct - 1992	NA	NA	NA	24	NA	NA
B-9	2	Oct - 1992	3.800	<0.005	NA	NA	NA	NA
	5	Oct - 1992	0.018	<0.005	NA	69.3	0.46	NA
	10	Oct - 1992	0.036	<0.005	NA	43	0.23	NA
	15	Oct - 1992	0.130	<0.005	NA	38.4	0.13	NA
B-10	2	Oct - 1992	4.300	<0.005	NA	NA	NA	NA
	5	Oct - 1992	0.180	<0.005	NA	77.3	0.09	NA
	10	Oct - 1992	0.066	<0.005	NA	50.8	0.23	NA
	15	Oct - 1992	0.200	<0.005	NA	85.3	ND	NA
B-11	2	Oct - 1992	3.000	<0.005	NA	NA	NA	NA
	5	Oct - 1992	2.900	<0.005	NA	40.9	ND	NA
	10	Oct - 1992	0.017	<0.005	NA	24.8	ND	NA
	15	Oct - 1992	0.480	<0.005	NA	31.6	0.17	NA
	20	Oct - 1992	0.027	<0.005	NA	NA	NA	NA
	30	Oct - 1992	0.500	<0.005	NA	NA	NA	NA
	40	Oct - 1992	0.003	<0.005	NA	NA	NA	NA
B-12	15	Oct - 1992	0.015	<0.005	NA	NA	NA	NA
	20	Oct - 1992	0.007	<0.005	NA	NA	NA	NA
FB1	1	06/27/96	NA	NA	NA	15.1	3.6	<0.2
FB2	1	06/27/96	NA	NA	NA	14.2	2.3	<0.2
FB3	1	06/27/96	NA	NA	NA	69.6	8.7	<0.2
FB4	1	06/27/96	NA	NA	NA	110	2.7	<0.2
FB5	1	06/27/96	NA	NA	NA	56.9	2.4	<0.2

TABLE 1
CHEMICAL ANALYSES OF SOIL SAMPLES
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA
(soil - milligrams per kilogram)

Boring Number	Depth (feet bgs)	Date Sampled	PCE	TCE	Toluene	Total Chromium	Cadmium	Chromium VI
VEW1-5	5	06/27/96	<0.005	<0.005	NA	NA	NA	NA
VEW1-15	15	06/27/96	0.054	<0.005	NA	NA	NA	NA
VEW1-25	25	06/27/96	0.212	0.013	NA	NA	NA	NA
VEW1-35	35	06/27/96	<0.005	<0.005	NA	NA	NA	NA
VEW1-45	45	06/27/96	0.021	0.014	NA	NA	NA	NA
VEW1-50	50	06/27/96	0.082	0.07	NA	NA	NA	NA
MW1-15	15	11/23/98	0.515	0.033	NA	NA	NA	NA
MW1-25	25	11/23/98	0.315	0.023	NA	NA	NA	NA
MW1-30	30	11/23/98	0.089	0.040	NA	NA	NA	NA
MW1-35	35	11/23/98	0.010	<0.005	NA	NA	NA	NA

Notes:

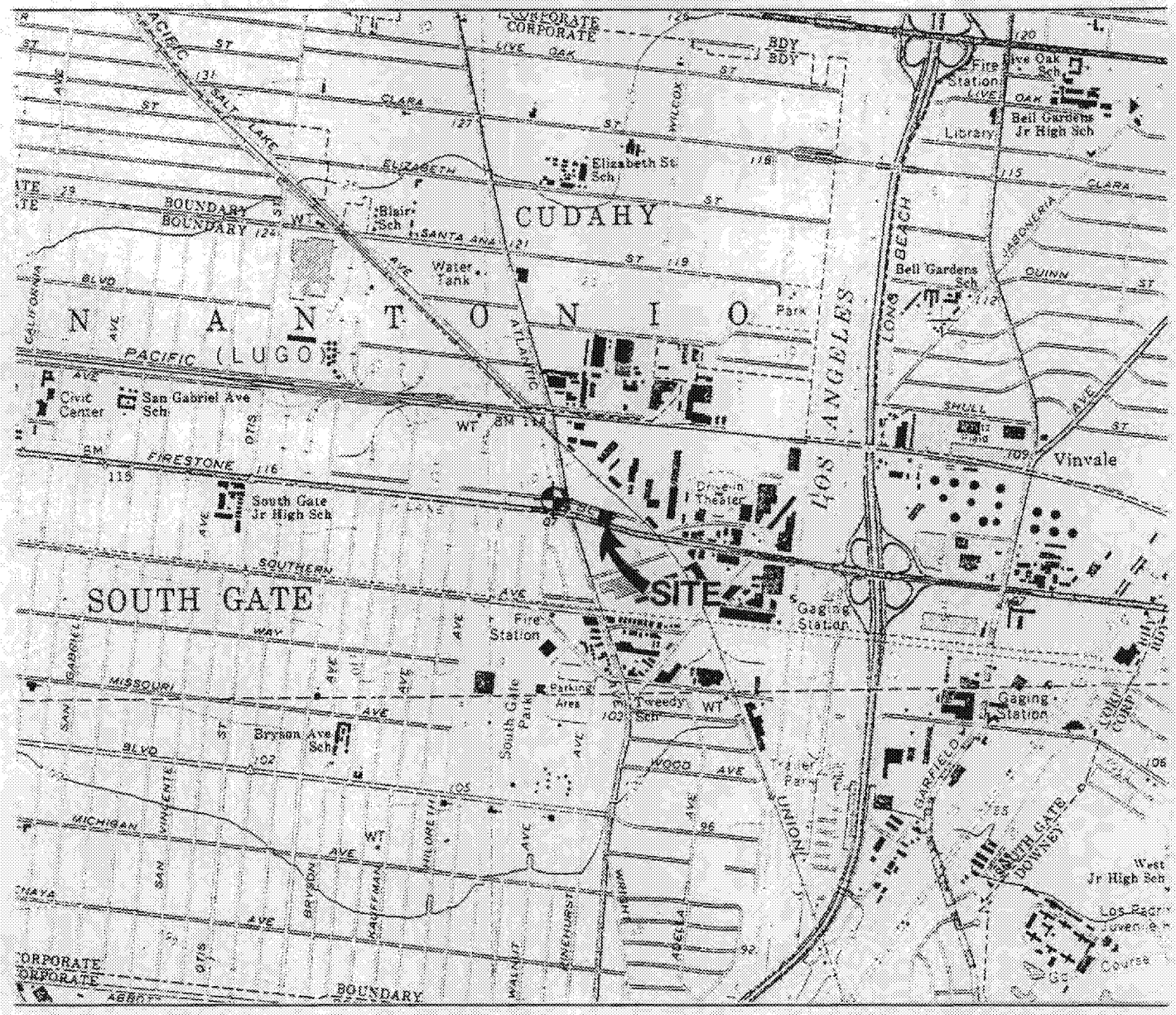
1 PCE = Tetrachloroethene
2 TCE = Trichloroethene
3 Sample data collected on April 23 , 1992 from Applied Geosciences report dated June 25, 1992.
4 Sample data collected on October 1992 from Applied Geosciences report dated November, 1992.
5 Sample data collected on June 27, 1996 from FREY Environmental, Inc. report dated December 16, 1996.
6 NA = Not Analyzed, ND = Not detected

TABLE 2
GROUNDWATER LEVELS AND CHEMICAL ANALYSES
FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

Well No.	Well Elevation (ft-msl)	Screen Interval (feet-bgs)	Date Sampled	Depth to Groundwater (feet)	Groundwater Elevation (ft-msl)	PCE ug/l (ppb)	TCE ug/l (ppb)	cis-1,2-DCE ug/l (ppb)	1,1-DCE ug/l (ppb)	Vinyl Chloride ug/l (ppb)	1,2-DCA ug/l (ppb)	Total Chromium ug/l (ppb)	Chromium VI ug/l (ppb)	Cadmium ug/l (ppb)
MW1	109 40	30-55	12/07/98	41 58	67 82	110	140	6 8	ND>1	ND>1.0	ND>0 5	NA	NA	NA
			03/03/99	40 71	68 69	140	190	ND>10	ND>16	ND>20	ND>10	19	ND>20	ND>4
			06/24/99	40.36	69 04	600	780	ND>25	ND>40	ND>50	ND>25	19	ND>20	ND>4
			09/17/99	40 31	69 09	707	824	9 4	1.9	1.9	ND>0 5	16	ND>20	ND>4
			12/20/99	40 35	69 05	395	635	10	1 6	ND>1 0	ND>0.5	37	ND>20	ND>3
			03/28/00	40 42	68 98	368	538	11	1.9	ND>1 0	ND>0.5	4	NA	NA
			06/26/00	40 50	68 90	663	909	125	ND>0.8	ND>1.0	ND>0.5	46	NA	NA
			09/22/00	40 55	68.85	111	150	11	1.9	ND>1.0	ND>0 5	ND>3	NA	NA
MW2	109 45	30-55	12/07/98	41.68	67 77	11	77	16	ND>1	ND>1 0	ND>0.5	NA	NA	NA
			03/03/99	40.81	68 64	6 5	130	13	ND>4	ND>5	ND>2 5	33	ND>20	ND>4
			06/24/99	40 45	69 00	20	160	13	ND>8	ND>10	ND>5	50	ND>20	ND>4
			09/17/99	40.40	69 05	15	156	21	ND>0 8	ND>1	ND>0 5	40	ND>20	ND>4
			12/20/99	40 43	69 02	27	158	18	ND>0.8	ND>1 0	ND>0.5	18	ND>20	ND>3
			03/28/00	40 38	69 07	8 4	138	27	0.8	ND>1.0	ND>0 5	19	NA	NA
			06/26/00	40 46	68.99	17	101	230	ND>0.8	ND>1.0	ND>0.5	38	NA	NA
			09/22/00	40 47	68.98	3.79	72 6	ND>0 5	ND>0 8	ND>1 0	ND>0 5	17	NA	NA
MW3	109.61	30-55	12/07/98	41 78	67 83	9.3	75	10	1 7	ND>1.0	ND>0.5	NA	NA	NA
			03/03/99	40 94	68.67	5.1	100	6.4	ND>4	ND>5	ND>2.5	68	ND>20	ND>4
			06/24/99	40.59	69 02	7.4	110	7 3	ND>8	ND>10	ND>5	50	ND>20	ND>4
			09/17/99	40 56	69.05	6.1	145	12	1 2	2.3	1 2	58	ND>20	ND>4
			12/20/99	40 61	69 00	4.4	43	3 6	ND>0.8	ND>1 0	ND>0.5	37	ND>20	ND>3
			03/28/00	40 54	69 07	4 7	114	13	1 7	ND>1 0	0 9	19	NA	NA
			06/26/00	40 61	69 00	26	92	ND>0 5	ND>0 8	ND>1 0	ND>0.5	44	NA	NA
			09/22/00	40 60	69.01	7.11	66	4 97	1 61	ND>1.0	ND>0 5	20	NA	NA
DTSC MCLs						5	5	6	6	0.5	0.5	50		5

Notes
1) Well elevation recorded at top of casing.
2) PCE = Tetrachloroethene
3) TCE = Trichloroethene
4) cis 1,2-DCE = cis 1,2 Dichloroethene
5) 1,1-DCE = 1,1 Dichloroethene
6) 1,2-DCA = 1,2 Dichloroethane
7) Maximum Contaminant Levels (MCLs) are enforceable drinking water standards
8) ND> - Constituent not detected above the stated concentration
9) NA - Not analyzed

FIGURES



EXPLANATION

- ⌖ Groundwater well UNOCAL property
- **MW1** Well number
- (53') Depth to groundwater in feet MSL (1994)

NORTH

0 1/2 1

SCALE IN MILES

FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

Client: TEDESCO LEASING **Project No.: 172-01**

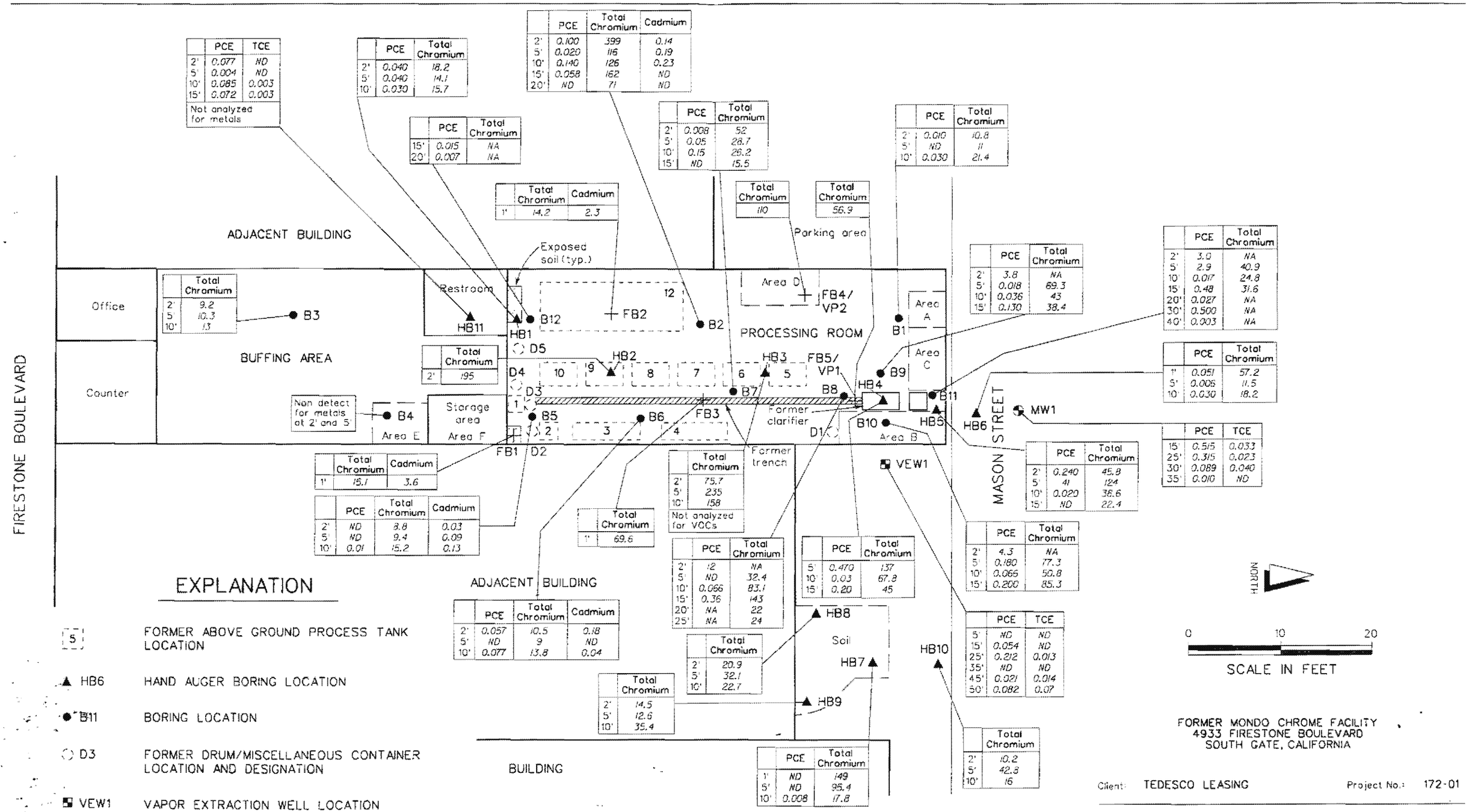
FREY ENVIRONMENTAL, INC.

NOTES:

1) All locations and dimensions are approximate.
2) Base map from USGS 7.5 minute South Gate (1966, photorevised 1981), California topographic quadrangle.
3) Groundwater well data from FUGRO West, Inc., project no. 94-48-1320.

SITE LOCATION MAP

Date: JANUARY 1996 **Figure: 1**



	PCE	TCE
2'	0.077	ND
5'	0.004	ND
10'	0.085	0.003
15'	0.072	0.003

Not analyzed for metals

	PCE	Total Chromium
2'	0.040	18.2
5'	0.040	14.1
10'	0.030	15.7

	PCE	Total Chromium	Cadmium
2'	0.100	399	0.14
5'	0.020	116	0.19
10'	0.140	126	0.23
15'	0.058	162	ND
20'	ND	71	ND

	PCE	Total Chromium
15'	0.015	NA
20'	0.007	NA

	PCE	Total Chromium
2'	0.008	52
5'	0.05	28.7
10'	0.15	26.2
15'	ND	15.5

	PCE	Total Chromium
2'	0.010	10.8
5'	ND	11
10'	0.030	21.4

	Total Chromium	Cadmium
1'	14.2	2.3

Total Chromium
110

Total Chromium
56.9

	Total Chromium
2'	9.2
5	10.3
10'	13

	PCE	Total Chromium
2'	3.8	NA
5'	0.018	69.3
10'	0.036	43
15'	0.130	38.4

	PCE	Total Chromium
2'	3.0	NA
5'	2.9	40.9
10'	0.017	24.8
15'	0.48	31.6
20'	0.027	NA
30'	0.500	NA
40'	0.003	NA

	Total Chromium
2'	195

	PCE	Total Chromium
1'	0.051	57.2
5'	0.006	11.5
10'	0.030	18.2

	Total Chromium	Cadmium
1'	15.1	3.6

	PCE	TCE
15'	0.515	0.033
25'	0.315	0.023
30'	0.089	0.040
35'	0.010	ND

	PCE	Total Chromium	Cadmium
2'	ND	8.8	0.03
5'	ND	9.4	0.09
10'	0.01	15.2	0.13

	PCE	Total Chromium
2'	0.240	45.8
5'	41	124
10'	0.020	36.6
15'	ND	22.4

	Total Chromium
2'	75.7
5'	235
10'	158

Not analyzed for VOCs

	Total Chromium
1'	69.6

	PCE	Total Chromium
2'	12	NA
5'	ND	32.4
10'	0.066	83.1
15'	0.36	143
20'	NA	22
25'	NA	24

	PCE	Total Chromium
5'	0.470	137
10'	0.03	67.8
15'	0.20	45

	PCE	Total Chromium
2'	4.3	NA
5'	0.180	77.3
10'	0.066	50.8
15'	0.200	85.3

	PCE	TCE
5'	ND	ND
15'	0.054	ND
25'	0.212	0.013
35'	ND	ND
45'	0.021	0.014
50'	0.082	0.07

	PCE	Total Chromium	Cadmium
2'	0.057	10.5	0.18
5'	ND	9	ND
10'	0.077	13.8	0.04

	Total Chromium
2'	20.9
5'	32.1
10'	22.7

	Total Chromium
2'	14.5
5'	12.6
10'	35.4

	PCE	Total Chromium
1'	ND	149
5'	ND	95.4
10'	0.008	17.8

	Total Chromium
2'	10.2
5'	42.8
10'	16

EXPLANATION

- [5] FORMER ABOVE GROUND PROCESS TANK LOCATION
- ▲ HB6 HAND AUGER BORING LOCATION
- ● B11 BORING LOCATION
- ○ D3 FORMER DRUM/MISCELLANEOUS CONTAINER LOCATION AND DESIGNATION
- ■ VEW1 VAPOR EXTRACTION WELL LOCATION
- + FB4/ VP2 SOIL SAMPLE LOCATION/VAPOR PROBE LOCATION

Total Chromium
1' 69.6

With concentration of chlorinated volatile organic compounds and selected metals in soil (in mg/kg)

NOTES:

1) All locations and dimensions are approximate.
2) Base map from Proposed Site Assessment, Former Mondo Chrome Facility, by Fugro West, Inc., project no. 94-48-1320, dated August 1994, and field observations made by FREY Environmental, Inc. July 1996.

FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

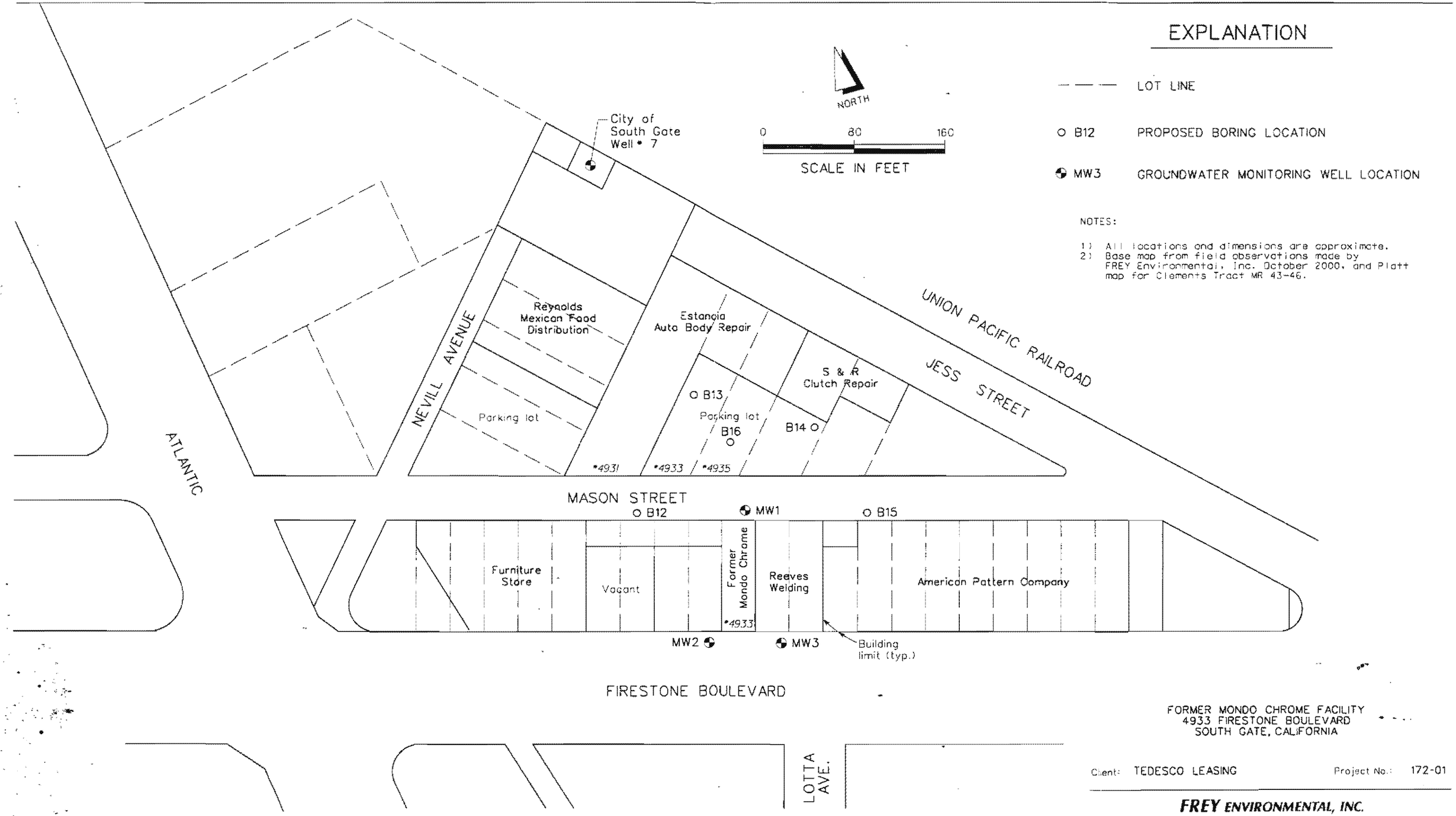
Client: TEDESCO LEASING Project No.: 172-01

FREY ENVIRONMENTAL, INC.

SITE SKETCH SHOWING CONCENTRATIONS OF CHLORINATED VOLATILE ORGANIC COMPOUNDS AND SELECTED METALS IN SOIL SAMPLES

Date: OCTOBER 2000 Figure 2

17201-2.DGN



EXPLANATION

- LOT LINE
- O B12 — PROPOSED BORING LOCATION
- MW3 — GROUNDWATER MONITORING WELL LOCATION

NOTES:

1) All locations and dimensions are approximate.
2) Base map from field observations made by FREY Environmental, Inc. October 2000, and Platt map for Clements Tract MR 43-46.

FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

Client: TEDESCO LEASING Project No.: 172-01

FREY ENVIRONMENTAL, INC.

SITE SKETCH SHOWING PROPOSED SOIL BORING LOCATIONS

Date: OCTOBER 2000 Figure 3

172-01/17201-2b.DGN

APPENDIX A

HEALTH AND SAFETY PLAN

REVISED HEALTH AND SAFETY PLAN

FORMER MONDO CHROME FACILITY
4933 FIRESTONE BOULEVARD
SOUTH GATE, CALIFORNIA

PROJECT NO. 172-01

FREY ENVIRONMENTAL, INC.
2817 A Lafayette Avenue
Newport Beach, CA 92663

October 20, 2000

Reviewed by:

Project Manager	Date
Site Geologist	Date
Driller	Date
Driller's Assistant	Date
Visitor	Date

1.0 INTRODUCTION

FREY Environmental, Inc. (FREY), has been retained by the Tedesco Leasing Partnership to conduct off-Site soil and groundwater investigation at 4933 Firestone Boulevard in Southgate, California (Site).

This document presents the health and safety procedures that are intended to guide field activities at the Site. The provisions of this plan apply to employees of FREY and its subcontractors. Regulatory agencies are expected to observe the safety rules and regulations established by their respective organizations in addition to the requirements of this document.

2.0 PROJECT SAFETY PERSONNEL

2.1 SAFETY PERSONNEL

FREY has been responsible for the preparation of this health and safety plan, and is to monitor compliance of its personnel, those of its subcontractors and visitors to the Site, with its provisions. FREY personnel responsible for the distribution of this health and safety plan and for the compliance audit are the Site Safety Officer and/or Project Manager.

The Project Safety Officer is responsible for delivering the plan and any addenda to the Project Manager and for advising the Project Manager and Site Safety Officer on health and safety provisions of this plan, suspend work or modify work practices for safety reasons, and to dismiss individuals whose conduct on site endangers the health and safety of others.

The Project Manager is responsible for distributing the plan to all FREY field personnel and to an authorized representative of each firm contracted to assist with on-Site work. The Project Manager is also responsible for implementing the provisions of this plan and its addenda. Implementation will include training of field personnel involved with the project, provision for the appropriate safety equipment, and that the required health and safety documents are submitted to the Project Safety Officer.

The Site Safety Officer is responsible for assisting the Project Manager with on-Site implementation of this Site safety plan. His responsibilities include: 1) maintaining safety equipment supplies, 2) performing air quality measurements as required or needed, 3) directing decontamination operations and emergency response operations, 4) setting up work zone markers and signs if such zones are specified in the Site safety plan, and 5) reporting all accidents, incidents, and infractions of safety rules and requirements to the Project Manager and the Project Safety Officer.

The Site Safety Officer has the authority to suspend work any time he determines that the provisions of the Site safety plan are inadequate to provide a working environment conducive to worker safety and he is to inform the Project Manager of individuals whose on-Site presence jeopardizes their health and safety or the health and safety of others.

3.0 WORK DESCRIPTION

- Advance four soil borings to a depth of approximately 40 feet below the ground surface (bgs);
- Collect soil samples at five foot soil intervals beginning at five feet bgs;
- Drill one soil boring to an estimated depth of 170 feet bgs;
- Collect soil samples at selected five-foot intervals;
- Collect groundwater samples from each boring;

4.0 HAZARD ASSESSMENT

According to available information, the major chemical compounds of concern most likely to be encountered during the work appear to be volatile organic compounds (VOCs). Based on previous investigations, perchloroethylene (PCE) appears to be the VOC most likely to be encountered during Site operations. The overall hazard to FREY personnel and associated subcontractors is estimated to be low. The following is a brief description of the potential hazards associated with these compounds:

4.1 HAZARDOUS CHEMICAL COMPOUNDS

4.1.1 CHLORINATED SOLVENTS

PCE has been tentatively classified as a known or suspected human or mammalian carcinogens. Direct skin or eye contact or exposure to high vapor concentrations may result in dermatitis, eye and/or lung irritation; acute overexposure may cause central nervous system depression, liver and or kidney damage, convulsions, coma, and even death. Symptoms can include headache, nausea, dizziness, increased perspiration, staggering gait, and slowing of mental ability.

A. Anticipated Concentrations: If present, levels resulting from soil vapor emissions or volatilization could range from low parts per billion to low parts per million in the open air and breathing zones of site personnel. All site activities will be conducted in the open air; no personnel will be permitted to enter enclosed or poorly ventilated areas on the site.

B. Exposure Routes: Inhalation, dermal/eye contact, absorption

C. PCE Exposure Limit -100 ppm TWA/200 ppm Ceiling (OSHA PEL)

4.1.2 METALS

Chromium has been detected in previous investigations and direct skin or eye contact or exposure to high vapor concentrations may result in dermatitis, eye and/or lung irritation or ulcers. Acute overexposure may cause central nervous system depression, or damage to the liver, kidney, skin, intestines or eyes.

A. Anticipated Concentrations: If present, levels resulting from soil vapor emissions or volatilization could range from low parts per billion to low parts per million.

B. Exposure Routes: Inhalation, dermal/eye contact, absorption

C. Chromium Exposure Limit: 0.1 ppm

D. Immediately Dangerous to Life: 30 ppm

4.2 INHALATION HAZARD

The major toxicity concern is PCE. PCE has a Threshold Limit Value (TLV) of 25 ppm, which is defined as the average exposure for a period of 8 hours per day, 5 days per week that is believed will not cause harm to worker health.

Vapor concentrations expected to encountered during soil boring activities are not expected to exceed recommended exposure limits, based on available Site information. However, respiratory protection (level C) must be used if concentrations reach 10 ppm.

4.3 DERMAL EXPOSURE HAZARD

Contact of sufficient duration to cause significant absorption of toxic components is highly unlikely. Repeated daily or prolonged contact with excavated objects or soils may be expected to defat the skin and perhaps, over a long period of time, lead to irritation and dermatitis. For this reason, direct contact with highly contaminated objects or soils should be avoided when possible by wearing gloves. However, if prolonged skin contact does occur, the exposed areas shall be washed with soap and water and rinsed thoroughly.

4.4 EXPLOSION HAZARD

PCE and chromium are not susceptible to explosions except under extreme temperatures which will not be attained during Site work. Explosive Limits have been listed as not applicable for PCE and chromium.

4.5 OTHER HAZARDS

Sufficient attention must be paid to other possible hazards on the Site including but not limited to:

- improper use of hand tools,
- heavy equipment operation,
- tripping on objects or open ditches,
- dehydration or sun stroke of the personnel, and
- lack of oxygen through blockage of face masks.

5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

5.1 SAFETY ORIENTATION MEETING

All field personnel should attend a safety orientation meeting before commencing the field work. The meeting will be scheduled and conducted by the project manager or the Site safety officer. The meeting will include presentation of the health and safety plan.

5.2 WORK ZONE

A restricted zone will be maintained to a distance of 25 feet from the work activity area if significant soil contamination is detected in the field. Protective clothing and equipment, as described in subsection 5.3 are to be worn by all personnel working within the restricted zone.

5.3 PROTECTIVE EQUIPMENT AND CLOTHING

5.3.1 EQUIPMENT REQUIRED FOR FIELD PERSONNEL (LEVEL D)

- Full length trousers, shirts
- Leather work shoes or Safety Boots
- Hard hats when near the bucket rig or loader
- Glasses or Goggles

5.3.2 EQUIPMENT REQUIRED TO BE AVAILABLE ON SITE

- Two respirators (half-mask with organic vapor cartridges)
- Disposable Coveralls
- Gloves
- First-aid kit
- Fire extinguisher
- A vehicle must be kept on Site when personnel are working for the transport of slightly injured personnel to the hospital. Severely injured personnel MUST ONLY be transported by paramedics.

5.3.3 RESPIRATOR USAGE

The Project Safety Officer and/or the Project Manager is responsible for deciding if respirators should be used. Usage would be based on OVM measurements. The TLV concentrations as noted in section 4.1 should be used as the critical concentration. If concentrations of organic vapors in the ambient air (as measured by the OVM) exceed 25 ppm, the field personnel must move out of the area. If the concentration remains at or above the TLV for more than 5 minutes, the Project Safety Officer and/or the Project Manager should be contacted and a decision made regarding whether to proceed with the work wearing respirators and extending the restricted work zone.

Cartridges for the respirators must be replaced daily or when break-through occurs, whichever occurs first.

6.0 ORGANIC VAPOR MONITORING

The organic vapor concentrations (as measured by the OVM) in the breathing zone of the individual working closest to the vapor source will be monitored as needed. Respirators must be worn if the concentrations are equal to or greater than the TLVs for the chemicals exposed.

7.0 EMERGENCY RESPONSE PROCEDURES

7.1 PHYSICAL INJURY

In the event of an accident resulting in physical injury, apply first aid. Severely injured personnel are to be transported only by paramedics and/or by ambulance personnel. At the hospital, a physicians attention is mandatory regardless of how serious the injury appears.

The Project Manager is to be notified by the Site Safety Officer, as soon after the injury as practical, regarding the nature of the accident. A written report is also to be prepared and submitted by the Site Safety Officer.

7.2 FIRE, EXPLOSION, AND PROPERTY DAMAGE

In the event of a fire or explosion, notify the Fire department immediately by dialing 911.

The Project Manager is to be notified by the Site Safety Officer as soon as practical and a written report prepared.

7.3 EMERGENCY TELEPHONE NUMBERS

Fire Department/Paramedics.....911

Police Department 911

7.4 WORK SITE ADDRESS

4933 Firestone Boulevard
Southgate, California

7.5 HOSPITAL ADDRESS AND ROUTE

Saint Francis Medical Center
3630 East Imperial Highway
Lynwood, CA

(323) 603-6000

ROUTE - See attached figure

8.0 PROJECT PERSONNEL

Project Safety Officer/Manager	Evan Privett
Site Safety Officer and Field Personnel	Kent Tucker Vitelio Rameriz
Drilling Contractor	BC2 Drilling

APPENDIX B

FIELD PROCEDURES

APPENDIX B
FIELD PROCEDURES

B.1 GEOPROBE DRILLING PROCEDURES

1. Borings B12 through B15 will be advanced with a direct push drill rig.

2. Down hole drilling equipment will be steam-cleaned prior to use at the Site and between each boring.

3. Soil descriptions, sample type and depth, and related drilling information will be recorded on a boring log under the supervision of a State-Certified Engineering Geologist from FREY Environmental, Inc.

4. Soil samples will be collected using a split-barrel modified California sampler.

5. Samplers will be cleaned between sample intervals using a brush and tap water rinse followed by a brush and TSP solution (non-phosphate), a tap water rinse, and deionized water rinse. The sampler will be dried by air or with a towel prior to sampling.

6. Soil samples will be collected in 1-inch inside diameter acetate liners.

7. Following retrieval of the sampler, the ends of the acetate liner will be covered with aluminum foil, capped with PVC endcaps and labeled.

8. The samples will be placed in ziploc bags and stored in a cooler packed with ice.

9. The samples will be delivered to a State of California-certified hazardous waste testing laboratory following collection. Sample handling, transport, and delivery to the laboratory will be documented using Chain-of-Custody procedures, including the use of Chain-of-Custody forms.

B.2 HOLLOW STEM AUGER DRILLING PROCEDURES

1. Boring B16 will be drilled with by a CME 85 truck mounted drilling rig with 8.25-inch outside diameter hollow stem augers.

2. The augers will be steam-cleaned prior to the drilling of the boring.

3. Soil descriptions, sample type and depth, and related drilling information will be recorded on a boring log under the direction of a State-Registered Geologist from FREY Environmental, Inc.

4. Soil samples will be collected using a split-barrel modified California sampler.

5. The sampler will be cleaned between sample intervals using a brush and tap water followed by a brush and TSP solution, a tap water rinse, and deionized water rinse. The sampler was dried by air or with a towel prior to sampling.

6. Soil samples will be collected in 2-inch inside diameter and 6-inch long stainless steel or brass tubes. Prior to initial use, the sample tubes will be cleaned, rinsed and dried using the procedures described above in Item 5.

7. The sampler will be driven into the soil using a 140-pound hammer dropped approximately 30 inches. The number of blows (blow count) required to advance the sampler 12 to 18 inches will be recorded on the boring log for each 6-inch increment.

8. Following retrieval of the sampler, the lower 6-inch tube will be removed from the sampler, the ends covered with aluminum foil, and capped with PVC end caps. Each sample will be labeled with the sample number and project number.

9. The soil in the remaining sample tubes will be used to describe the soil and a one-inch ring will be used for field head space analysis.

10. The samples will be stored in an ice chest cooled with ice.

11. Sample handling, transport, and delivery to a laboratory will be documented using Chain- of-Custody procedures, including the use of Chain-of-Custody forms.

B.3 HEAD-SPACE ANALYSIS

1. Samples were extruded directly into a mason jar.

2. The sample was allowed to equilibrate.

3. The sample was then connected to a flame ionization detector, organic vapor analyzer.

B.4 WATER SAMPLE COLLECTION PROCEDURES

1. Groundwater samples will be collected using a hydropunch. The hydropunch consists of hollow, steel rod with a pointed end. A sleeve on the metal rod is retracted which reveals a screened interval through which water can enter. The hydropunch is lowered down the center of the hollow stem auger.

2. The laboratory supplied containers (40 mL vials) are placed directly in the hydropunch.

3. The collected water samples are placed in an ice chest and cooled using ice following collection.

4. The samples will be delivered to a State of California-certified hazardous waste testing laboratory. Sample handling, transport, and delivery to the laboratory will be documented using Chain-of-Custody procedures and appropriate forms.

APPENDIX C

WELL LOGS

INVESTIGATION

DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

SHEET 1

South Coastal Basin

NUMBER B-771

Owners #17

LOCAL DESIGNATION C-11

WELL LOG

LOCATION S 61° E Fr cudahay Station, S 66° W Fr E end SPRR LA River bridge, N 9° E Tweey School. Note Cor. 2° clockwise for Mag. North.

Location #1524B

OWNER Mfg concern -name to withheld until later date.

DATE COMPLETED 3-10-31

DIAMETER OF CASING 16"

DRILLED BY Roscoe Moss

SOURCE OF INFORMATION Driller's log book

INSPECTED WHILE DRILLING JCK SEE FILE NO. C-11

SURFACE ELEVATION 109' ± USGS

SKETCH

MICROFILMED

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEVATION OF BOTTOM OF STRATUM	MATERIAL	THICKNESS FEET	% VOIDS	ABSOLUTE VOIDS FEET	TOTAL VOIDS FEET
0- 3 00	106	Sand S				X
3- 79 00	30	Silt ZS				
79- 93 16	16	Fine sand FS	14			Exposition
93-161 07	-52	Black clay C	~~68~~			
161- 68 21	-59	Sand and gravel: 90% sand	7			
168-94 03	-85	Clay C	~~17~~			X
194-201 23	-92	Sand (90%) Gravel to 1" 10%	7			
201-12 04	-103	Clay C	~~11~~			
212-32 05	-123	Sand and silt FS	20			Gage
232-37 21	-128	Coarse sand and gravel to 1"	5			
237-59 03	-150	Silt and clay CS	~~22~~			
259-62 23	-153	Good gravel to 1" G	3			
262-312 02	-203	Clay C	~~50~~			X
312-31 ~~86~~ 92	-222	Fine sand FS	19			Hollydale
331-90 03	-241	Clay C	~~51~~			X
390-412 05	-303	Sand and clay CS	22			
412-19 21	-310	Sand and gravel to ½" G	7			Jefferson
419-35 03	-326	Clay C	~~16~~			
435-49 14	-340	Gravel to 3" G	14			
449-54 26	-345	Coarse sand S	5			
454-77 03	-368	Clay C	~~23~~			X
477-500 14	-391	Gravel to 4" G	23			
500-20 03	-411	Clay C	~~20~~			Lynwood
520-34 25	-425	Gravel (good) G	14			
534-44 [illegible]	-435	Clay C	~~10~~			
544-56 14	-447	Coarse gravel G	12			
556-66 07	-457	Clay - total depth.				

LOG OBTAINED BY DATE

CALIFORNIA STATE PRINTING OFFICE